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INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PAADD03675	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/KR2003/001263</b>	International filing date (day/month/year) <b>27 JUNE 2003 (27.06.2003)</b>	Priority date (day/month/year) <b>27 JUNE 2002 (27.06.2002)</b>
International Patent Classification (IPC) or national classification and IPC <b>IPC7 G03B 41/00</b>		
Applicant <b>AGENCY FOR DEFENSE DEVELOPMENT et al</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand <b>26 JANUARY 2004 (26.01.2004)</b>	Date of completion of this report <b>18 OCTOBER 2004 (18.10.2004)</b>
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer <b>KIM, Sang Hee</b> Telephone No. 82-42-481-5974 

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR2003/001263

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheet \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed." and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

### 2. Citations and explanations (Rule 70.7)

Documents cited in the International Search Report:

D1: US 4983837 A (Cooper et al.) 8 Jan. 1991  
D2: WO 98/03882 A (SFIM Industries) 29 Jan. 1998  
D3: US 6359681 A (Housand et al.) 19 Mar. 2002

#### 1. Regarding Novelty:

1.1 The subject matter of the claim 1 of the present application is a line of sight scanning method for a turret aided continuous zoom camera characterised in defining equations to determine scan width, scan rate, and scan trajectory.

The subject matter of D1 is a forward looking infrared imaging system comprised of a reimaging afocal lens system. The purpose of D1 is to modify an existing forward looking infrared imaging system rather than to automatize line of sight scan using a continuous zoom camera as in the present application.

The subject matter of D2 is an observation or sighting system for vehicles comprised of an optical system and sensors for night vision. D1 is characterised in extending the wavelength range for observation or sighting.

The subject matter of D3 is a combined laser/FLIR optics system characterised in an imaging system for improving the ability to recognize, detect, locate, and/or track targets.

None of the cited documents (D1-D3) describe the equations to determine scan width, scan rate, and scan trajectory. Therefore the subject matter of the claim 1 is considered to be new (Art. 33(2) PCT).

As dependent claims of the claim 1, the subject matter of the claims 2-4 is also considered to be new (Art. 33(2) PCT).

1.2. The subject matter of the claim 5 of the present application is a line of sight scanning apparatus for a turret aided continuous zoom camera comprised of a turret sensor module, a multifunctional display unit, a multifunctional control unit, a system electronics unit. It is also characterised in confining scan width and scan rate.

None of the documents (D1-D3) provide the constraints for confining scan width and scan rate. Therefore the subject matter of the claim 5 is considered to be new (Art. 33(2) PCT).

As dependent claims of the claim 5, the subject matter of the claims 6-10 is also considered to be new (Art. 33(2) PCT).

continued...

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## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Box V.

### 2. Regarding Inventive Step:

2.1 The subject matter of the claim 1 is considered to be similar to the subject matter of D1-D3 in that all of them contain optical system and imaging system. However, none of the cited documents disclose or define equations and parameters to determine scan width and scan rate. Furthermore, none of them provide any hint of using such equations and the parameters used.

Therefore the subject matter of the claim 1 seems to involve an inventive step (Art. 33(3) PCT).

As dependent claims of the claim 1, the subject matter of the claims 2-4 also seems to involve an inventive step (Art. 33(3) PCT).

2.2. The subject matter of the claim 5 is also considered to be similar to the subject matter of D1-D3 for the same reason mentioned above. Again, none of the cited documents provide any hint for using the parameters to determine the scan condition for the system control processor.

Therefore the subject matter of the claim 5 seems to involve an inventive step (Art. 33(3) PCT).

As dependent claims of the claim 5, the subject matter of the claims 6-10 also seems to involve an inventive step (Art. 33(3) PCT).